

Semantics and Semantic Analysis

CSC 9010: Special Topics. Natural Language Processing.

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Some slides adapted from Dom, www.umiacs.nmd.edu/~christof/courses/cm5c723-fall04, Kurfess: www.csc.calpoly.edu/~flaurfess/Courses/CSC-481/W03/Slides/3-Knowledge-Representation.ppt and Hirschberg: www1.cs.columbia.edu/~julia/cs4705/syllabus.html

Meaning

- So far, we have focused on the structure of language, not on what things *mean*
- We have been doing natural language *processing*, but not natural language *understanding*.
- So what *is* natural language understanding?
 - Answering an essay question on an exam?
 - Deciding what to order at a restaurant by reading a menu?
 - Realizing you've been insulted?
 - Appreciating a sonnet?
- As hard as answering "What is artificial intelligence?"

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Meaning, cont

- On the practical side, we want to “understand” natural language because morphology- and syntax-based methods will only take us so far in some things:
 - Machine translation
 - Generation
 - Question answering
- So we saw how we could use n-grams to choose the more likely translation for a word given other words. But n-grams can't give us the potential translations in the first place.

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